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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/527,972

01/13/2006

David William Birch

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08/21/2008

The BOC Group, Inc.

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EXAMINER

LEE, CLOUD K

ART UNIT

PAPER NUMBER

3753

MAIL DATE

DELIVERY MODE

08/21/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/527,972	Applicant(s) BIRCH, DAVID WILLIAM	
	Examiner CLOUD K. LEE	Art Unit 3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 13-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 13-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 March 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/15/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the pin index (claim 2) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-9 and 13-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Lockwood Jr (US Patent No. 4,402,340).

Lockwood Jr discloses a valve comprising a single valve member in the form of a spring-loaded shuttle (52), the spring (174) exerting a pressure on the shuttle in a valve -closing direction, a valve seat (214), a guide (the surface of the shuttle is trading in a upward and downward direction) defining a channel (where spring 174 is located) in which the shuttle is able to travel, a stop member (168) able to be translated in the channel into and out of a position in which the stop member holds the valve member in its valve-closing position and a valve body (the lower portion of the shuttle 52) which is engaged by the guide, the guide being able to translate into a position in which the shuttle cannot be brought to bear against the valve seat (the valve element 224 prevent the shuttle contact with the valve seat, see figures 12 and 14). The body has a pin index (thread). The shuttle has a head (226) extending in the direction of the valve seat (14) from a body of greater diameter than the head (164 has greater diameter than the head 226), the head having an orifice (see figure 16 for the orifice) affording gas communication between an external port (156) of the valve and a region of the channel (where spring 174 is located) intermediate the shuttle (164) and the stop member (168). The spring (174) is a compression spring, one end of the spring is seated in a recess (see figure 9) in the shuttle and the other end of which bears against the stop member, wherein the orifice in the head of the shuttle communicates with the intermediate region of the channel via the recess (see figure 16 for detail). The valve seat (214) is integral with the valve body. The stop member (168) has a screw

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thread (see figures) engaging a complementary screw thread in the guide, wherein the stop member is integral with a valve spindle (170) and wherein the valve spindle (170) is terminates in a handwheel (172). The guide (where shuttle 164 is traveling) has an internal surface that acts as a stop preventing engagement of the shuttle and the valve seat. The gas cylinder fitted with a cylinder valve (see abstract, "A combined manual and pressure-responsive shut-off valve, intended particularly for use with high pressure gas cylinders...").

Regarding claim 15, the gas cylinder containing a medical gas, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lockwood Jr (US Patent No. 4,402,340) in view of Yonezawa (US Patent No. 3,981,328).

Lockwood Jr fails to disclose the guide having a screw-threaded outer surface engaging a complementary screw in the valve body and the guide having a socket in which can be inserted a tool for removing and replacing the guide.

Yonezawa discloses a guide (19) with a screw-threaded outer surface (18) engaging a complementary screw in the valve body (1) and the guide has a handling portion (19') in which can be inserted a tool (33) for removing and replacing the guide. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided the guide of Yonezawa in Lockwood Jr invention in order to provide a replaceable guide by using a tool.

6. Claims 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lockwood Jr (US Patent No. 4,402,340) in view of Yonezawa (US Patent No. 3,981,328) as applied to claim 10 above, and further in view of Ellis (US Patent No. 2,262,669).

The combination of Lockwood Jr and Yonezawa discloses the guide with a handling portion in which can be inserted a tool. However, Yonezawa fails to disclose a socket in which a tool can be inserted.

Ellis discloses a socket (58) in which a specific tool can be inserted for removing and replacing a head (57). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided a socket of Ellis in combination with Lockwood Jr and Yonezawa in order to permit operation with a specific tool only to replace/remove the guide from body.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Losh (US Patent No. 1,146,723) and Chabat-Courrede et al. (US Patent No. 4,364,541) disclose a similar invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CLOUD K. LEE whose telephone number is (571)272-7206. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Huson can be reached on (571)272-4887. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John Rivell/
Primary Examiner, Art Unit 3753

CL